National Aeronautics and
Space Administration

George C. Marshall Space Flight Center
Marshall Space Flight Center, AL 35812

Reply to Attn of: DA01

TO: Distribution

FROM: DA01/A.G. Stephenson

SUBJECT: Minutes of the MSFC Quality Council Meeting

The MSFC Quality Council (MQC) met on Wednesday, August 15, 2001. The meeting began at 3:00 p.m. in Building 4200, Conference Room P110. The roster of attendees for the meeting is attached as Enclosure 1. The presentation charts for the meeting are included as Enclosure 2.

OPENING REMARKS (A. STEPHENSON/DA01 and A. ROTH/DE01):
In the interest of time, opening remarks were bypassed to proceed directly to the meeting agenda. D. Miller/QS40 noted that this was an update rather than a full MQC. The agenda for the meeting is on page 4 of Enclosure 2.

MQC ACTION ITEMS STATUS (D. MILLER/QS40):
The six open actions from previous MQC meetings were presented and discussed. The presentation charts are included as pages 5-23 of Enclosure 2. The actions were:

MQC-0041 – Identify those continuous improvement processes (that have been completed) throughout the Center. Select three (3) of those processes and have the employee or manager who came up with the process come and present those processes. Allow those individuals an opportunity to show their innovative hard work.

One presentation was given at the previous MQC, one was on the agenda for this meeting, and the third is scheduled for the next MQC. D. Miller/QS40 recommended that a continuous improvement process be presented at each MQC meeting and that this action be closed. The action was closed.

Property Management Continual Improvement (CI) Presentation (P. Mefford/AD41)
The presentation outlined how Property Management went from an outdated, "broken" system with a 1.59% property loss rate to the present system with only a 0.05% property loss rate. Following the presentation, A. Stephenson/DA01 asked P. Mefford/AD41 and R. Malone/AD40 how this was accomplished and if the CI was management or employee driven. It was stated that a team of contractors and civil servants was formed; that key lab personnel and other customers

were contacted for input into the problem and/or solution; and, that the process was both management and employee driven. (The presentation charts are included as pages 7-9 of Enclosure 2.)

Mr. Malone/AD40 stated that the system was so badly broken that the project couldn't fail to make an improvement. The Department needed a vision as to what could/should be done and encouragement that change would be beneficial in the long run. The key to the process was cleaning up the property tracking database (NEMS) and getting customers involved. Mr. Stephenson/DA01 asked, "Is it management's job to create vision" or was the success due to creating a team, imparting the vision to the team, then empowering the team to fix the problem? After further discussion, he stated that this was a good success story that illustrated the need for management to enable/empower a team of people familiar with the system to fix it.

J. Kennedy/DD01 asked if the lower property loss rate could be tied to a dollar amount. The answer was that it can, it is a sizable amount, but the exact figure was not available at the meeting.

MQC-0042 – Organizations are to work together to make sure that they continue to support the audit program. If the organization has a person that has already been assigned to an audit and the auditor changes organizations, the responsible organizations should communicate with each other to ensure the auditor doesn't automatically drop from the audit. (W. Woods/QS40)

There has only been one audit since this action was given, and the situation has not occurred again yet. This action should remain open until further data can be gathered.

Mr. Roth/DE01 stressed that it is not Mr. Wood's job to substitute for people who can't meet their audit commitments. If a person signs up for an audit, they are obligated to perform the audit, or locate someone qualified and willing to take their place. It was agreed to leave this action open since no data was available with which to make a decision.

MQC-0043 – The Audit Manager is to provide feedback on support and communicate the performance of auditors to their respective directorate managers. Reports should communicate positive and negative issues concerning the auditor's support and capability. (W. Woods/QS40)

It was agreed to leave this action open until further data could be gathered.

MQC-0044 – S&MA to lead a team to define a process for collecting data concerning the Center's process performance and product conformity. SMO and Project Offices should be included on the team. (M. Strickland/QS10)

Product Conformity and Process Performance Metrics (M. Strickland/QS10)
Results of the Product Conformity and Process Performance Team were presented along with recommendations for further action. Mr. Stephenson/DA01 stated that every project/program needs metrics that address the technical, business, cost and schedule aspects. Metrics help us identify "creeping problems" among other things. "Everyone ought to have metrics" because they help us focus on what is important.

The conclusion of the Team was that: Project metrics are varied, reported at top levels, and lack details; there is no structured guideline that drives project metrics selection; and, there is a need for accountability in metric reporting. The Team recommended that:

1. SMO should complete their guidelines for project metrics.
2. Assign the action to collect and report product conformity and process performance metrics to an organization at selected management review meetings.
3. Determine where/how metrics will be reported to upper management. (To meet the ISO requirements, metrics must be reported to upper management.)

Standardized Center metrics, that all project directors could "live with," would involve developing a common set of metrics that would allow the level of detail to vary by process/service. It was stated that program/project metrics are fairly well defined, but this is not true in areas where fundamental research is performed. Developing metrics is harder since "breakthroughs" can't be scheduled. Mr. Kennedy/DD01 suggested benchmarking to help with the process.

This action will be closed and a new action opened to implement the recommendations of the Team. Mr. Roth/DE01 took the action. The presentation charts are included as pages 13-21 of Enclosure 2.

ACTION:
Implement recommendations from the Product Conformity and Process Performance Metrics Team. (A. Roth/DE01, Due: 10/05/01) (See chart 20 of Enclosure 2.)

<u>MQC-0045</u> – All Organizations are to review Directives out for DCB review and provide an appropriate input to the DCB system. All Organizations shall also ensure that DCB alternates are assigned and that DCB activities are supported when the DCB member is unable to support. (A. Roth/DE01)

Organizational review of Directives has improved and DCB members/alternates have been assigned. Mr. Roth/DE01 stated that he would continue to monitor this activity and act as needed. This action was closed.

<u>MQC-0046</u> – Develop a plan to minimize overdue calibration. There should not be any delinquent category 1 items. (A. Roth/DE01)

Mr. Roth/DE01 reported that this area has had great improvement; the current number of delinquencies tends to fluctuate depending on when the report is run; and, the problem areas can be narrowed to just a few people. Mr. Stephenson/DA01 stated that if only a few people are causing the problem, managers should step in and let these employees know that their behavior/performance is unacceptable. Mr. Roth/DE01 stated that he would contact organizations that get behind in this area.

Mr. Stephenson/DA01 asked M. Haynes/AD23 where the "good idea" originated. The idea came from the employees, but it took a long time to clean up the process and required the

visibility/support of high-level management to get it worked.   Also, the new delinquency reports for the Calibration website will be in place soon.

This action was closed.

SPECIAL TEAMS STATUS REPORTS
D. Miller/QS40 stated that these presentations could be used during the NQA audit to show activities toward meeting the ISO requirements for continual improvement and customer satisfaction.

Continual Improvement Team (J. Carter/AD01)
J. Carter/AD01 presented an overview of the Continual Improvement (CI) Team activities. The CI directive and web-based training module are now available to the employees. The CI website is in development and should be up by Friday. The presentation charts are included as pages 25-26 of Enclosure 2

Mr. Stephenson/DA01 asked if the CI website addressed how to create change, to empower the employees to make change?   At present, it doesn't. Mr. Stephenson/DA01 stated that the website needs to address this aspect and that CaER should take a lead in it. He also stated that we need to remove the roadblocks. Let employees form teams and do what they see needs to be done.

ACTION:
Review CI website and make changes to address how MSFC employees can create change and give employees a mechanism and the ability to initiate change through the Continual Improvement process. (T. Washington/CD01, Due: 10/05/01)

Customer Satisfaction Team and Metrics (S. Noneman/FD35)
An overview was presented on the Customer Satisfaction Team activities and customer feedback and performance metrics from ED, AD and the QualComm (Customer Feedback) system. The Customer Satisfaction directive and web-based training module are now available to employees. Mr. Roth/DE01 stated that the training requires less than 10 minutes to complete. Mr. Noneman/FD35 stressed the need for employees to participate in customer service training classes offered through the EdTech and Training Department.   The presentation charts are included as pages 27-42 of Enclosure 2.

D.K. Hall/ED02 presented the two FY01 metrics and demonstrated the web-based survey sent to managers. A dissatisfied response automatically brought up a comment response box. Most of the meaningful information came from survey comments and during face-to-face follow-ups.

J. Carter/AD01 mentioned that different metrics are important depending on the product, process and/or service provided. It is necessary to be able to selectively choose which metrics are meaningful to your situation. Mr. Stephenson/DA01 asked about the ISO requirements concerning metrics. M. DeMurray/HEI stated that the section on continual improvement requires use of the quality policy, quality objectives, data analysis, management reviews, internal

audits, and corrective/preventive action. Quality objectives should be "measurable." The thought process behind setting objectives and metrics was discussed.

Each Directorate should use the quality policy as a basis for developing objectives and metrics. The MSFC quality policy is to provide quality products and services to our customers. In order to understand if you are meeting the policy, you have to understand who your customers are, what products/services you are providing to them, and what a "quality" product/service is. Then you can set objectives that will enable you to fulfill the policy and you can establish metrics to monitor your performance.

It was also mentioned that published metrics can be found in the Implementation Plan, but since the auditor will also look at the next level down, it is possible that we will get "dinged" on this in the pre-assessment audit. Mr. Stephenson/DA01 asked if every organization had someone working on the "six steps" mentioned. If not, "go think about it."

Strategic Planning Team (M. McLean/CD40)
DCB review comments to the Strategic Planning directive are being worked. The Balanced Scorecard website is being developed as a repository for metrics. The presentation charts are included as pages 43-44 of Enclosure 2

CLOSING REMARKS (A. ROTH/DE01)
The regular surveillance audit is scheduled for August 28-30. Elements to be audited are:
       4.1 Management Responsibility
       4.3 Contract Review
       4.4 Design Control
       4.10 Inspection and Testing
       4.12 Inspection and Test Status
       4.14 Corrective and Preventive Action
       4.17 Internal Quality Audits
       Customer Complaints
       Use of the NQA Logo

The surveillance audit is required at this time to continue our present certification and all flight projects are subject to the audit. In response to a question on the "use of the NQA Logo," D. Miller/QS40 responded that NQA adds addition requirements if we use their Logo on our material. Marshall does not use the NQA Logo.

A simultaneous 9K:2K pre-assessment audit will be held August 29-30. This audit will be full scope—no exemptions. However, the emphasis will be on activities providing products/services to external customers. The registration audit to 9K:2K will be in November 2001.

Issues and Recommendations (A. Roth/DE01)
An emphasis on training the employees is needed. D.Miller/QS40 accessed the MSFC Management Directives Master List to demonstrate how employees can access the new Customer Satisfaction and CI training modules. An additional internal audit of the Center, prior to November, is needed because the 9K:2K ISO standard requires that we perform internal audits

to the new requirements of the standard. Finally, it was recommended that we proceed with the pre-assessment audit this month. The presentation charts are included as pages 45-49 of Enclosure 2

OTHER
Mr. Stephenson/DA01 requested that every MQC meeting should include a success story from each of three areas—Customer Satisfaction, Continual Improvement, and Collaborative efforts with organizations outside of MSFC. He also suggested that we go ahead with the November full scope audit in memory of Sid Saucier and call it the "Sid Saucier Full Scope Audit." The attendees agreed.

No other items for record were discussed at the meeting. D. Wills/AD33 kept the meeting minutes.

A.G. Stephenson
Chairman
MSFC Quality Council

Enclosures:
1. Roster of Attendees
2. Meeting Presentation Charts

Distribution:
Council Members
Meeting Attendees

ISO 9000 MSFC QUALITY COUNCIL MEETING

DATE: WEDNESDAY, August 15, 2001 LOCATION/ TIME: BLDG. 4200/P110, 3:00 p.m.

MEETING ATTENDANCE: [Please Check (X) Next to Your Name to Record Meeting Attendance.]

NAME	ORGANIZATION	PHONE	FAX
Director's Office			
Art Stephenson	**DA01**	**544-1912**	**544-5228**
James W. Bilbro	DA01	544-3467	544-8345
Bob L. Sackheim	DA01	544-1938	
Jim Kennedy	**DD01**	**544-1914**	**544-5896**
Axel Roth	**DE01**	**544-0451**	**544-5590**
Center Operations Directorate			
Sheila Cloud	**AD01**	**544-0120**	**544-5893**
Jim Carter	AD01	544-6630	544-7920
Linda Carpenter	AD02	544-8236	544-5867
Dan Adams	AD10	544-1614	544-8259
Lana Cucarola	AD30	544-0096	544-8752
Annette Tingle	AD30	544-4522	544-8752
Amanda Rasco	AD33	544-4511	544-8752
Deborah Wills	AD33	544-4525	544-8610
Lisa Adkins	AD40	544-7546	544-6570
Polly Edwards	AD50	544-4536	544-2101
Customer & Employee Relations Directorate			
Tereasa Washington	**CD01**	**544-7491**	**544-6420**
Susan Cloud	CD01	544-5377	544-2610
Pat Shultz	CD20	544-7559	544-4809
Caroline Wang	CD30	544-3887	544-6030
Engineering Directorate			
Bill Kilpatrick	**ED01**	**544-1001**	**544-5896**
Pat Layky	ED12	544-3481	544-3098
Terry Roberts	ED16	544-3717	544-0900
Jim Lindsay	ED20	544-1301	544-0236
Craig Garrison	ED27	544-7197	544-8838
Dawn Cross-Stanley	~~ED36~~ ED35	544-1835	544-5877
Richard Lamb	ED37	544-1037	544-4307
Sonya Hutchinson	ED42	544-3312	544-5178
Herb Shivers	ED43	544-8903	544-9614
Karen Iftikhar	ED44	544-3653	
Flight Projects Directorate			
Jan Davis	**FD01**	**544-0455**	**544-7580**
Jackie Steadman	FD10	544-1940	544-5590
Jack Stokes	FD22	544-1764	544-5194
Steve Meacham	FD30	544-0241	544-4393
Michael Nelson	FD41	544-2059	544-9353
Chief Counsel			
Bill Hicks	**LS01**	**544-0010**	**544-0258**
Jim Frees	LS01	544-0123	544-5867
Abbie Johnson	LS01	544-0014	544-0258

Space Shuttle Projects Office

AAM Alex McCool	MP01	**544-0718**	**544-2432**
Jodie Singer	MP01	544-0612	544-4155
Jeff Spencer	MP21	544-7498	544-7713
JmP John Pea	MP71	544-8437	544-5799

Equal Opportunity Office

Charles Scales	OS01	**544-4927**	**544-2411**
Willie Love	OS01	544-0088	544-2411
Elia Ordonez	OS01	544-6658	544-2411
Billie Swinford	OS01	544-0087	544-2411

Procurement Office

(sig) Steve Beale	PS01	**544-0257**	**544-3214**
Byron Butler	PS01	544-0253	544-4400
RBW Ray Woods	PS10	544-0384	544-3223
Jerry Williams	PS10	544-0295	544-4401
Jim Young	PS10	544-0362	544-3223

Safety and Mission Assurance

Amanda H. Goodson	QS01	**544-2353**	**544-2053**
JE Jim Ellis	QS01	544-0721	544-3893
Ron Mize	QS01	544-2485	544-8101
(sig) Terry Hamm	QS10	544-7402	544-3241
(sig) Mark Strickland	QS10	544-7432	544-4155
(sig) Don Miller	QS40	544-8361	544-4857
(sig) Kerry Warner	QS40	544-7350	544-8585
(sig) Warren Woods	QS40	544-2275	544-5685

Office of Financial Officer

J. Alexander for Dave Bates	RS01	**544-0052**	**544-0635**
Sandy Coleman	RS01	544-0795	544-3536
Frank D. Mayhall	RS01	544-7266	544-4479
Peggy Williamson	RS24	544-3357	544-5863
Sharal Huegele	RS30	544-7286	544-9055

Science Directorate

Ann Whitaker	SD01	**544-2481**	**544-5877**
Tom Fleming	SD01	544-3962	544-5975
James Grisham	SD01	544-9607	544-8369
Robin Henderson	SD10	544-1738	544-8639
Lloyd Love	SD20	544-7702	544-2559
Roger Chassay	SD30	544-1969	544-5975
Clark Darty	SD40	544-2728	544-5892
(sig) Tom Dollman	SD40	544-6568	544-8500
Mike McCollough	SD50	544-4368	544-5800
Ed Reichmann	SD50	544-7603	544-5800
Tim Miller	SD60	922-5882	922-5823
Diane Samuelson	SD60	922-5832	922-5723
Joe Stroud	SD70	544-3529	544-2659
Roy Young	SD70	544-4965	544-2659
Tommy L. Thompson	SD72	544-3489	544-2659
(sig) Don Thurman	SD80	544-1908	544-9243
Wes Darbro	SD~~92~~ *22*	544-7742	544-2559

(sig) LOUBACCE1   SD 10

Space Transportation Directorate

Name	Code	Phone	Fax
Dennis Kross	TD01	544-3551	544-4103
Chris E. Singer	TD01	544-7058	544-5876
James Wyckoff	TD03	544-7922	544-1821
Ed Reske	TD64	544-1753	544-1215
Gaines Watts	TD73	544-1455	

2nd Generation Reusable Launch Vehicle Program Office

Name	Code	Phone	Fax
Dennis Smith	UP01	544-9119	544-4103
Dan Dumbacher	UP01	544-0171	544-4051
Charles Chesser	UP01	544-0107	544-2053
Bruce Morris	UP01	544-2237	544-5095

Systems Management Office

Name	Code	Phone	Fax
Bob McKemie	VS10	544-2266	544-5178
Neil Rainwater	VS10	544-8918	544-5178

Contractors

Name	Code	Phone	Fax
Mary DeMurray	HEI	544-1342	544-4470
Don Hartley	HEI	544-8981	544-4470
John McPherson	HEI	544-7479	544-9257
Randy Reed	HEI	544-6056	544-4470
Jim Thomason	HEI	544-3303	
Jeff Robinson	SCSC	544-4589	544-8990

VISITORS

NAME	ORGANIZATION	PHONE	FAX
David Hall	6D02		
Steven R. Noneman	FD35	4-2048	4-0603
Steve Durham	CD40	4-0390	4-0007
Michael McLean	RS/CD40	4-0397	4-0007
Robert Champion	CD40	4-0478	4-0007
Roslin Hicks	DA01	4-7795	
David Throckmorton	ED01	4-1001	
Michael Haynes	A023	4-7933	

Marshall Quality Council

August 15, 2001

Opening Remarks

Art Stephenson

Opening Remarks

Axel Roth

- MQC Action Items Status

- Special Teams Status Reports

    – Continual Improvement

    – Customer Satisfaction

    – Strategic Planning

- Closing Remarks

    – Surveillance Audit

    – Pre-Assessment Audit

- Other

MQC Action Items Status

MQC-0041 – Identify those continuous improvement processes (that have been completed) throughout the Center. Select three (3) of those processes and have the employee/or manager who came up with the process come and present those processes. Allow those individuals an opportunity to show their innovative hard work.

- One presentation was made at the MQC meeting on 6/5/01. One presentation will be made today, and the last of the three presentations will be given at the next MQC meeting.

- Recommend adding one continuous improvement process to all future MQC agendas and close this action item.

Property Management CI - Pam Mefford

Property Management Continual Improvement (CI)

MSFC Property ACCOUNTABILITY

Security

Control Processes

Training

Loss Rate

2.00%

1.59%

1.50%

1.00%

0.50%   0.50%

0.00%

FY99   FY00
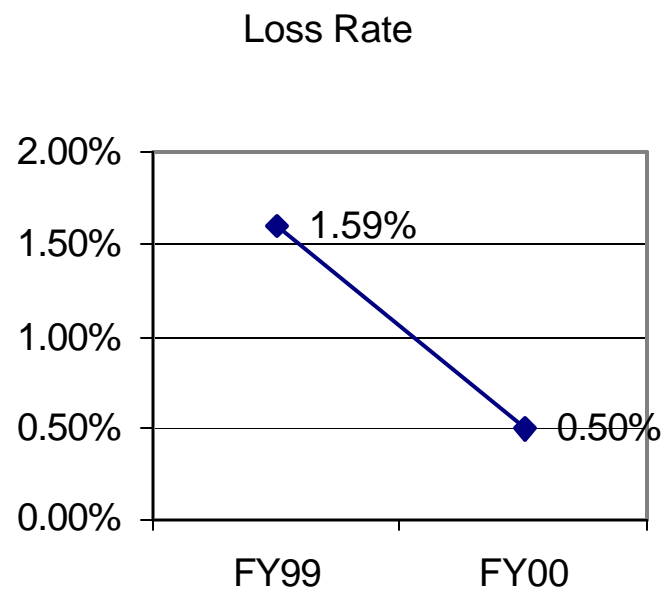
CENTER OPERATIONS - Logistics Services Department

Property Management CI - Pam Mefford

- Property Management procedures were outdated and not consistently followed – last updated in 1989.
    - ISO provided documentation and process discipline.
    - Tiger team reviewed 71 processes & identified 514 solutions.

- Infrequent inventories and poor inventory - high property losses.
    - Instituted Annual Inventories combining efforts with ODIN, PrISMS, CSOC, BOEING, and NEMS.

- Property custodian program was poorly transitioned fostering the belief that users were no longer accountable.
    - Created Property Support Assistants to assist users in their property responsibilities.

- Property tracking data base (NEMS) was not kept up to date.
    - Initiated NEMS War Room effort to ensure a user is assigned to each piece of equipment, to correctly match users with equipment, and to have users sign for and be accountable for equipment.
    - Developed Marshall Asset Management System (MAMS).

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CENTER OPERATIONS - Logistics Services Department

Property Management CI - Pam Mefford

- Survey Process was broken
  - Revitalized Survey Board with new board members and streamlined the process
  - Board now poised to hold users accountable

- Mobile Property Pass
  - Initiated pass to provide users transporting Government property off-Center with badge-size documentation to justify mobile property transports

- Property Awareness Campaign
  - Property Awareness Video/booths/displays
  - Web-based Mandatory Property Awareness Training
    - Educated users on property responsibilities/processes
    - 6,500 personnel trained in 23 days with 99% response rate
    - Half-hour IT training saved approximately 125 presenter hours and 3,150 estimated employee hours

MQC Action Items Status

MQC-0042 - Warren Woods

MQC-0042 – *Organizations are to work together to make sure that they continue to support the audit program. If the organization has a person that has already been assigned to an audit and the auditor changes organizations, the responsible organizations should communicate with each other to ensure the auditor doesn't automatically drop from the audit.*

Status: Since the completion of the last MQC, this situation has not come up again.

MQC-0043 – Warren Woods

<u>MQC-0043</u> *– The Audit Manager to provide feedback on support and communicate the performance of auditors to their respective directorate managers. Reports should communicate positive and negative issues concerning the auditor's support and capability.*

- Status: After the completion of the internal audit of TD, a memo was sent to each of the directors whose organization supported the audit with auditors.

MQC-0044 - Mark Strickland

MQC-0044 – *S&MA to lead a team to define a process for collecting data concerning the Center's process performance and product conformity. SMO and Project Offices should be included on the team.*

- Status: See presentation

Product Conformity and Process Performance Metrics

Report to the MQC
August 14, 2001

Team Members	Org
Dawn Cross	ED35
Don Miller	QS40
John Brunson	VS10
Kathryn Ogle	FD21
Kelly Looney	TD11
Mary DeMurray	QS40/HEI
Neil Rainwater	VS10
Patrick McDuffee	VS10
Robyn Carrasquillo	FD21
Tom Stinson	SD40

Mark Strickland - Lead

S&MA Office

SR&QA Dept.

August 15, 2001

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- # GOAL: Assure MSFC meets the ISO 9001:2000 (9K:2K) requirements for product conformity and process performance reporting to management:

  - 5.6 Management Review

    - 5.6.2 Review input

    - The input to management review shall include information on

    - a) results of audits,

    - b) customer feedback,

    - c) <u>process performance and product conformity</u>,

    - d) status of preventive and corrective actions,

    - e) follow-up actions from previous management reviews,

    - f) changes that could affect the quality management system, and

    - g) recommendations for improvement.

- Product Conformity and Process Performance Team Objectives:
  - Understand ISO 9K:2K requirements and guidelines associated with product conformity and process performance
  - Learn what is employed or utilized at other NASA centers (JSC and KSC).
  - Recommendations should be from metrics approved and collected
  - Recommend metrics that will lead to improvement
  - Recommend metrics that cut across product directorates
  - Recommend action plan to meet initial reporting requirement and future options for improvement

Product Conformity and Process Performance

- ISO 9004:2000, "Quality management systems – Guidelines for performance improvements"
    - Considers effectiveness and efficiency of quality management system
    - Expands on ISO 9K:2K to include satisfaction of interested parties and the performance of the organization
- ISO 9004:2000 guidelines recommend:
    - Measurement of process performance throughout organizations to determine if planned objectives have been achieved.
    - Product and process performance should be considered when establishing quality objectives derived from strategic planning and the quality policy.
    - The financial reporting of activities related to product conformity should be used in management reviews.
    - The management of the organization should undertake periodic review of process performance to ensure the process is consistent with the operating plan. Examples of topics for this review include
        - reliability and repeatability of the process,
        - identification and prevention of potential nonconformities,
        - adequacy of design and development inputs and outputs,
        - consistency of inputs and outputs with planned objectives,
        - potential for improvements, and
        - unresolved issues.

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Product Conformity and Process Performance

- ISO 9004:2000 guidelines recommend:
  - Measurements of process performance should cover the needs and expectations of interested parties in a balanced manner. Examples include
    - capability,
    - reaction time,
    - cycle time or throughput,
    - measurable aspects of dependability,
    - yield,
    - the effectiveness and efficiency of the organization's people,
    - utilization of technologies,
    - waste reduction, and
    - cost allocation and reduction.

- JSC Metrics
  - Each quality objective (still under review) has Center-wide metrics
  - Identify where improvements are being made
  - Relate these back to objectives
    - Reduce the number of mishaps
    - Ensure customer satisfaction
    - Reduce the cost of doing business (Improve process effectiveness.)
    - Establish common processes
    - Reduce common or repeat product discrepancies
    - Assure timely resolution of product discrepancies
    - Improve corrective action response time

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Product Conformity and Process Performance

- KSC S&MA Metrics by Contractor
  - Inspection sampling (percent accepted/sample; Pareto of errors by cause, processing center, and system)
  - First-time quality throughput (%) and Pareto of errors by cause

- Possible MSFC Metrics
  - Brainstormed possible metrics
    - Project plans approved vs. projects in implementation phase
    - Receiving inspection rejections by cause/supplier
    - Engineering changes by cause
    - Design reviews
    - Verification
    - Waivers/deviations
    - Shipping
  - Reviewed ECLSS quarterly (June 2001)
    - Drawing release data
    - Design review data
    - Documentation TBD data
    - Performance data

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- ## Possible MSFC Metrics (cont'd)
  - Reviewed SMO activity associated with electronic Project Online Reporting Tool (ePORT)
    - Useful in collecting and reporting project metrics
    - Stoplight areas
      - Compliance of program/project management planning and processes
      - Cost
      - Schedule
      - Technical performance with respect to requirements for mission success
  - Monthly Directorate stoplight reports could be useful in collecting information for product conformity and process performance metrics

Product Conformity and Process Performance

- Conclusion
  - Project metrics are varied and reported at top level (stoplight); details lacking.
  - No structured guideline that drives project metrics selection.
  - Need accountability for metric reporting.

- Recommendation
  - SMO should complete guidelines for project metrics.
  - Assign the action to collect and report product conformity and process performance metrics to an organization at selected management review meetings.
  - Determine where/how metrics will be reported to upper management (i.e., MQC).

Product Conformity and Process Performance

- Future Considerations
  - Consider a standardized acceptance review process unless otherwise authorized by PMC
  - Consider standardized Center metrics for the future
    - Project plans approved vs. projects in implementation phase
    - Receiving inspection rejections by cause/supplier
    - Engineering changes by cause
    - Design reviews
    - Verification
    - Waivers/deviations
    - Shipping

MQC-0045 - Axel Roth

MQC-0045 – All Organizations are to review Directives out for DCB review and provide an appropriate input to the DCB system. All Organizations shall also ensure that DCB alternates are assigned and that DCB activities are supported when the DCB member is unable to support.

- All Organizations have named DCB members and alternates

- DCB participation has greatly improved

- Recommend this item for closure

MQC Action Items Status

MQC-0046 - Axel Roth

MQC-0046 – *Develop a plan to minimize overdue calibration. There should not be any delinquent category 1 items.*

- When individuals do not respond to late notifications from the calibration laboratory, delinquent item reports will be elevated to the Marshall ISO 9000 Management Representative to contact the appropriate Directorate/Office head for action.

- Changes are being made to the Calibration Web Site – new reports added
  - Report of all delinquent Category 1 items within a specific organization
  - Report of all delinquent Category 1 items Centerwide

- Recommend this item for closure

Special Teams Status Reports

Continual Improvement Team
Status for the Marshall Quality Council
August 15, 2001
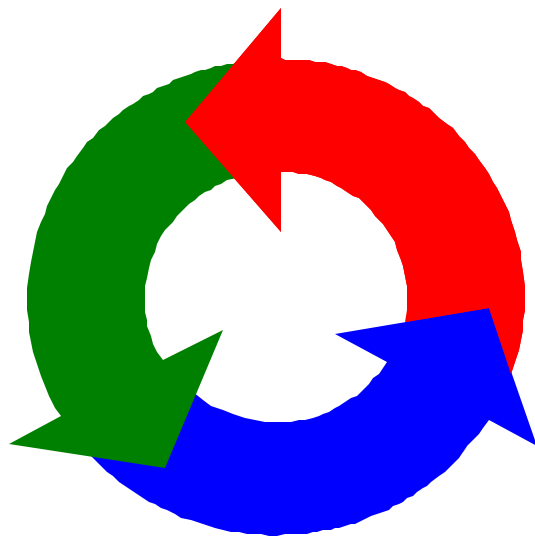
Jim Carter
Deputy Director
Center Operations Directorate

Continual Improvement

•Continual Improvement recommendations and actions approved by the MMS Implementation Team (July 25, 2001).

•Continual Improvement web-based training module developed.

•MPG 1280.9 Draft 2 (Continual Improvement) ready for DCB.

•Requirement for Quality Objectives communicated via Implementation Plan process (July 17, 2001).

•Continual Improvement web site is in development. Completion date is August 17, 2001. The site is for input of implemented continual improvement efforts and can be view and the following URL: http://contimp.msfc.nasa.gov

Customer Satisfaction Team

Status Report for the MQC
15-August-2001
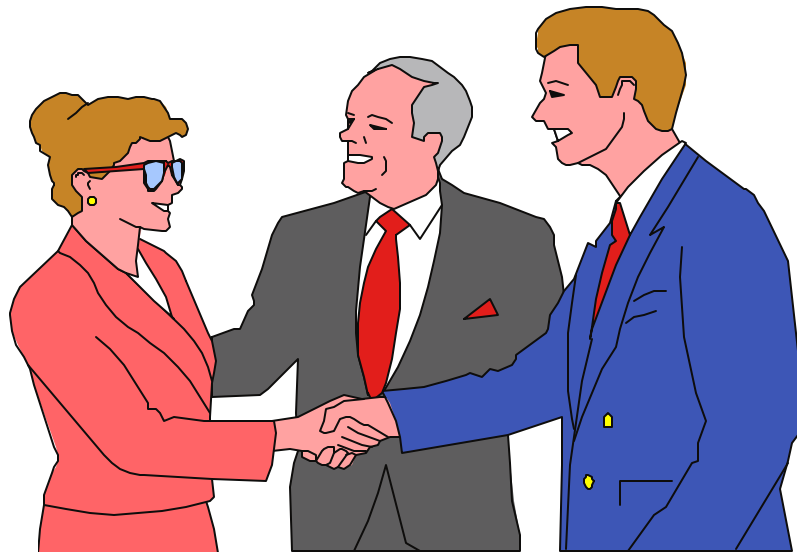
Steven R. Noneman

Flight Projects Directorate
Training and Crew Operations Group

Customer Satisfaction

- Customer Satisfaction Special Team recommendations and actions accepted by MMS Implementation Team on June 20.

- Customer Satisfaction MPG approved by DCB on August 3.

- Customer Feedback System MWI update ready for DCB.

- CD40/Steve Durham designated to coordinate MSFC Customer Satisfaction activity (collect metrics and customer lists).

- Workforce Customer Satisfaction web-training developed.

- DE01 memo sent on Customer Satisfaction to direct reports:
  - Name Customer Feedback Coordinators
  - List Customer groups
  - Have workforce complete Customer Satisfaction web training
  - Nominate Customer Satisfaction metrics for FY02 Implementation Plan
  - Encourage participation in Customer Service training
  - Continue/implement proactive collection of customer feedback

Engineering Directorate - Customer Satisfaction

D.K. Hall – ED02

- FY 2001 Implementation Plan: 90% Customer Satisfaction

- 4th Quarter FY 2001 Customer Survey distributed to Product Line Directorates/Office (FD, MP SD and TD)

  - Survey developed by David K. Hall, ED Customer Satisfaction Coordinator

  - 80 targeted surveys distributed to

    - Office/Directorate Staff, Project Manager/Chief Engineer/Lead System Engineer, Business Office Manager and Task Manager

    - 13 question survey - demo

    - Scoring range: 1 (totally dissatisfied) , 2 (dissatisfied), 3 (neutral), 4 (satisfied) and 5 (totally satisfied)

  - 32 completed surveys received

    - Still receiving surveys

- FY 2001 Metric as of 8/9/2001: 96% Customer Satisfaction

Center Operations Directorate
Customer Feedback & Performance Metrics

Customer Satisfaction Metric

- FY2001 Implementation Plan: 90% Customer Satisfaction

- Customer Feedback Collected in Numerous Ways

  - Survey cards are left with customer by service provider

  - Emails to customer when job complete asking them to complete an electronic survey

  - Specific customer satisfaction surveys

  - Each MSFC org has opportunity to provide input to performance of PrISMS contract

  - Personal visits to the customers

  - In most cases, when customer reports poor service they are contacted to determine the problem

- From Customer Responses to Date for FY2001: 95% Customer Satisfaction

Job Satisfaction

Percent of Respondents

Service rated good, very good, excellent

Service rated poor or fair

Jan-01 Feb-01 Mar-01 Apr-01 May-01 Jun-01

Month Measured
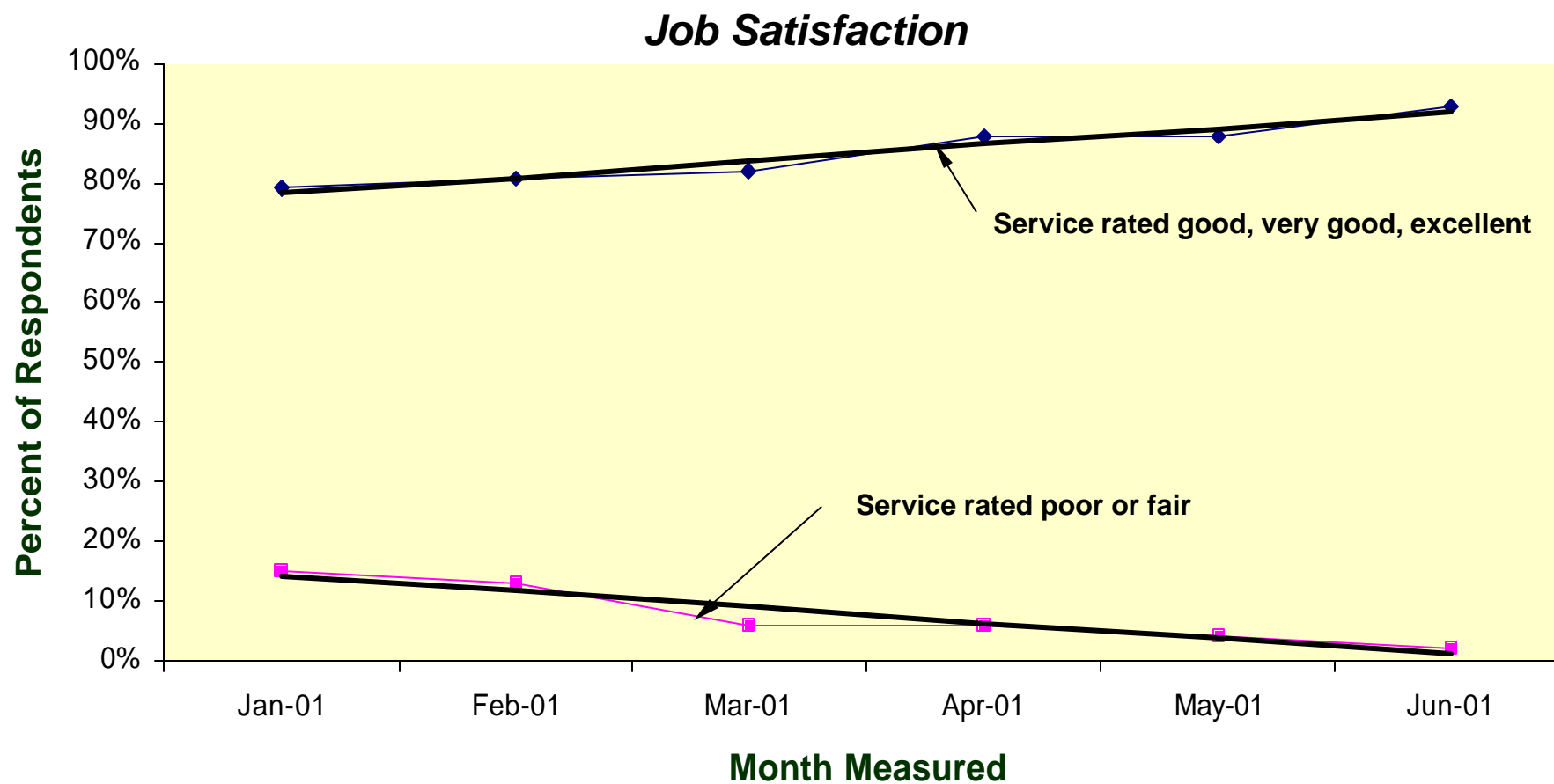
* Sample Size – 1,300 respondents

Customers satisfaction is steadily increasing while dissatisfaction is decreasing.

Facilities Eng. Dept. Customer Feedback

Jobs Requiring Rework
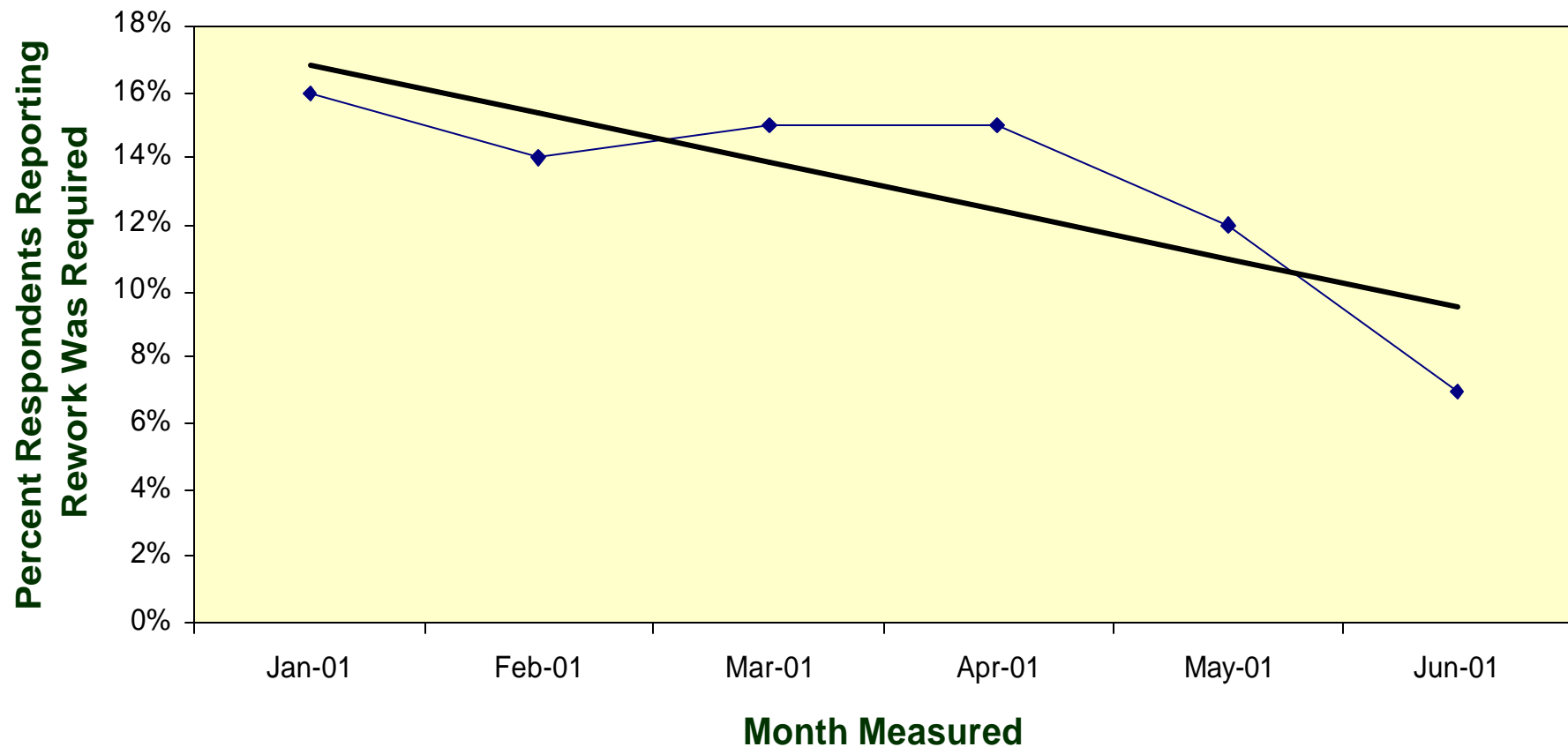
* Sample Size – 1,300 respondents

Jobs requiring rework have been significantly reduced.

Facilities Eng. Dept. Customer Feedback
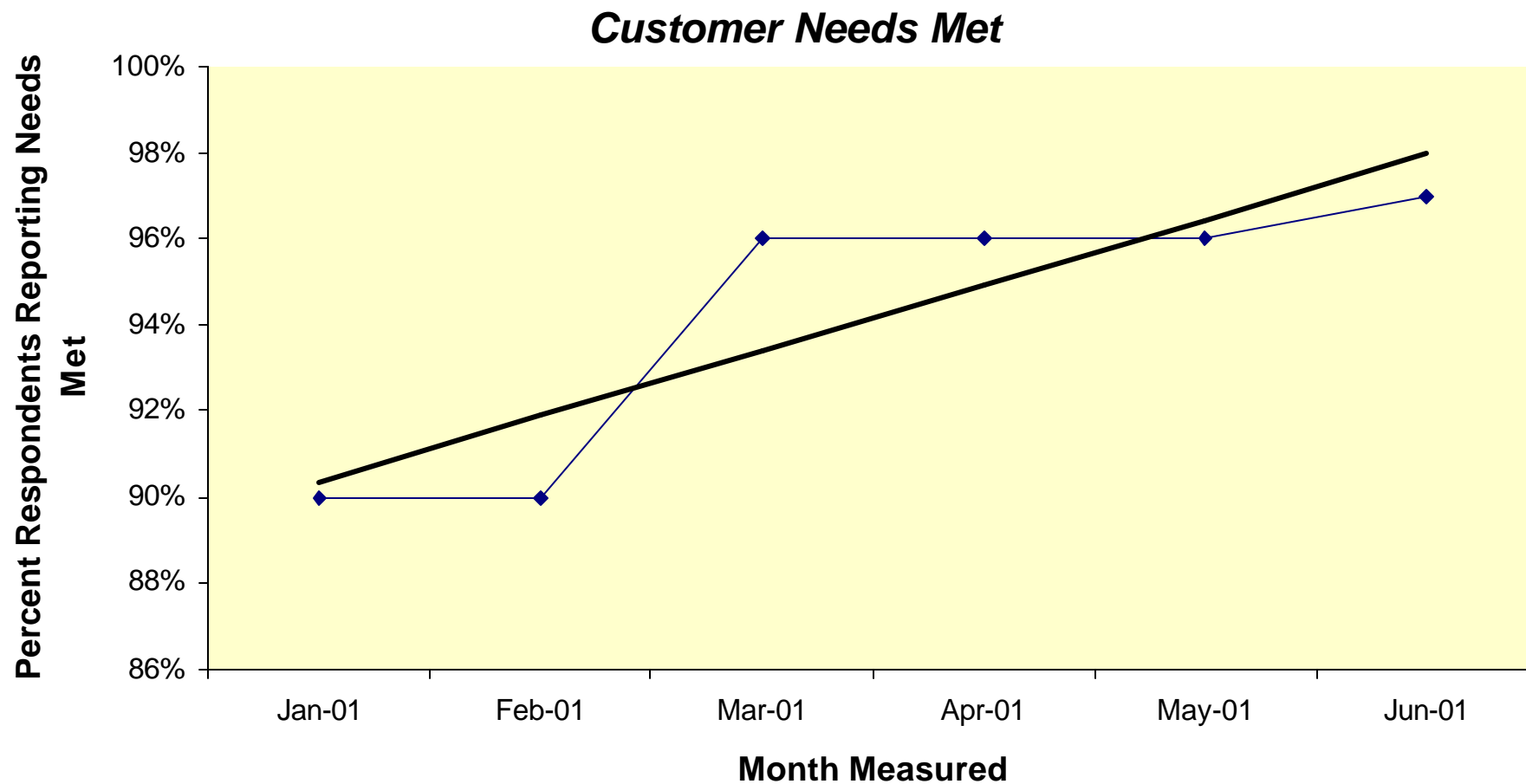
Customer Needs Met

* Sample Size – 1,300 respondents

Significant improvement has been made in assuring customer needs are met.

34

Logistics Services Department
Customer Feedback

Timeliness

Percent Respondents Satisfied With Timeliness

Month Measured
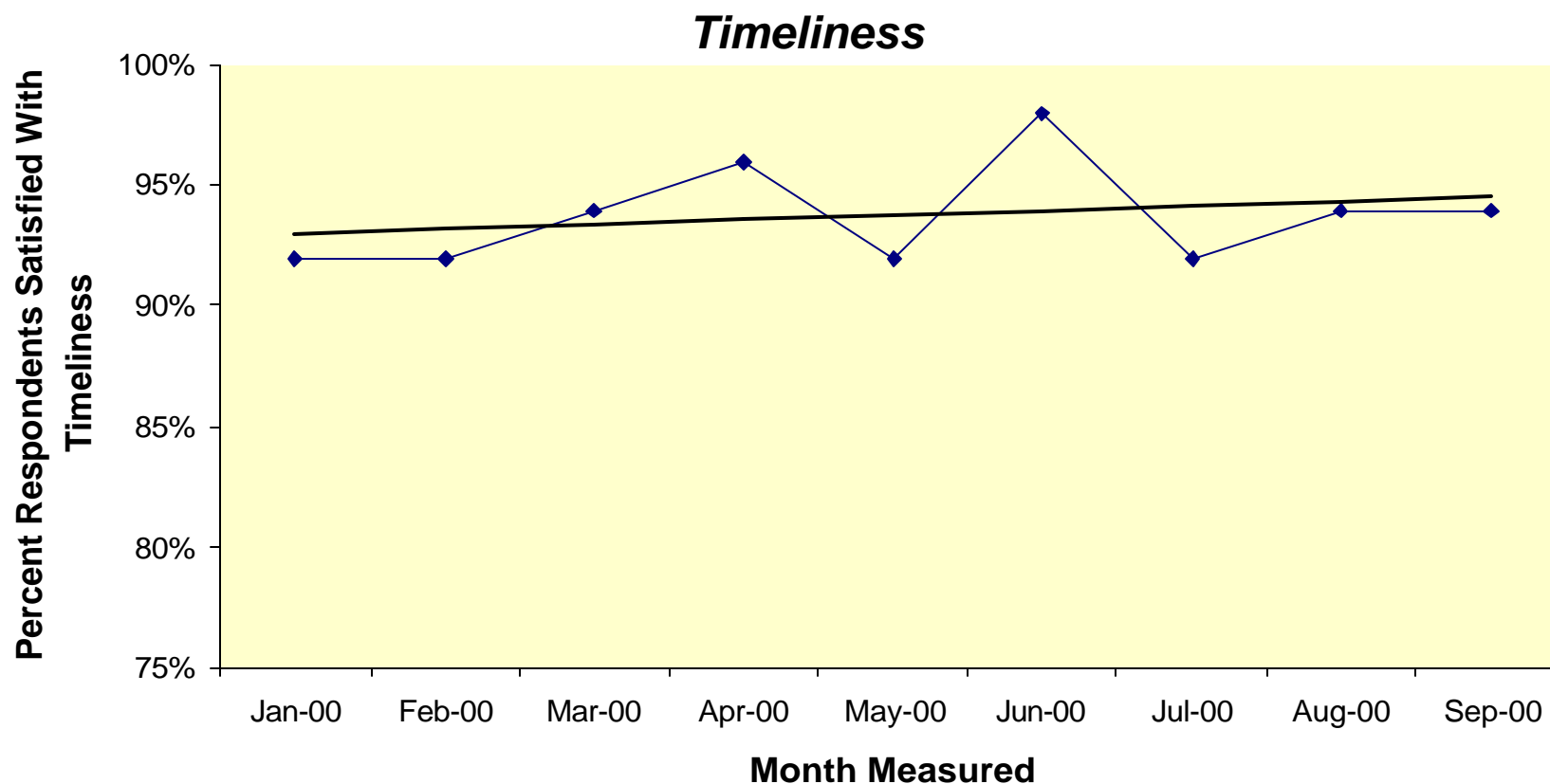
Timeliness of logistics services is steadily increasing.
Customer satisfaction rate for this feature of the
service is high.

Courteousness
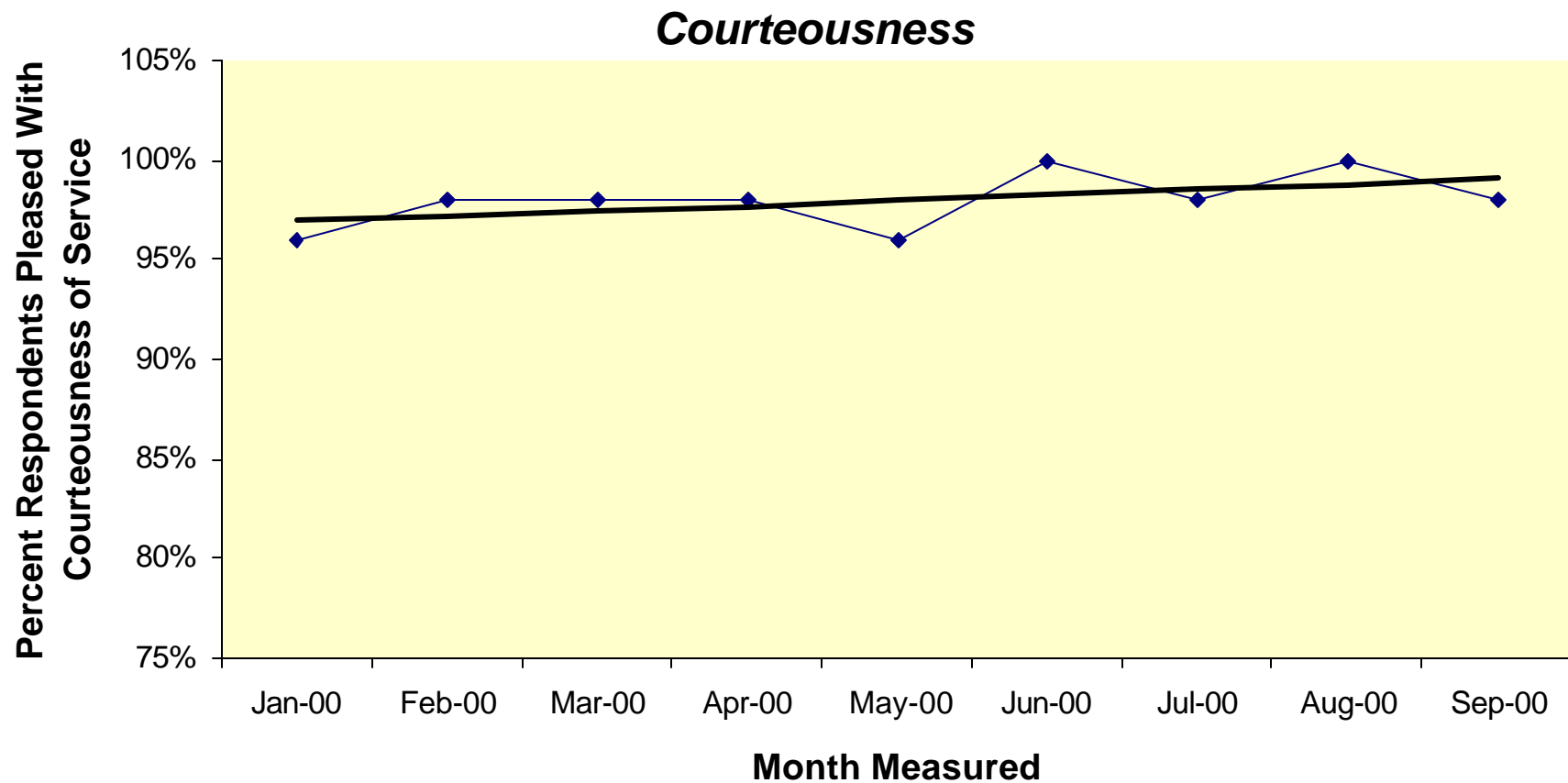
Customers report high levels of satisfaction with the courteousness of the service providers.

Logistics Services Department
Customer Feedback
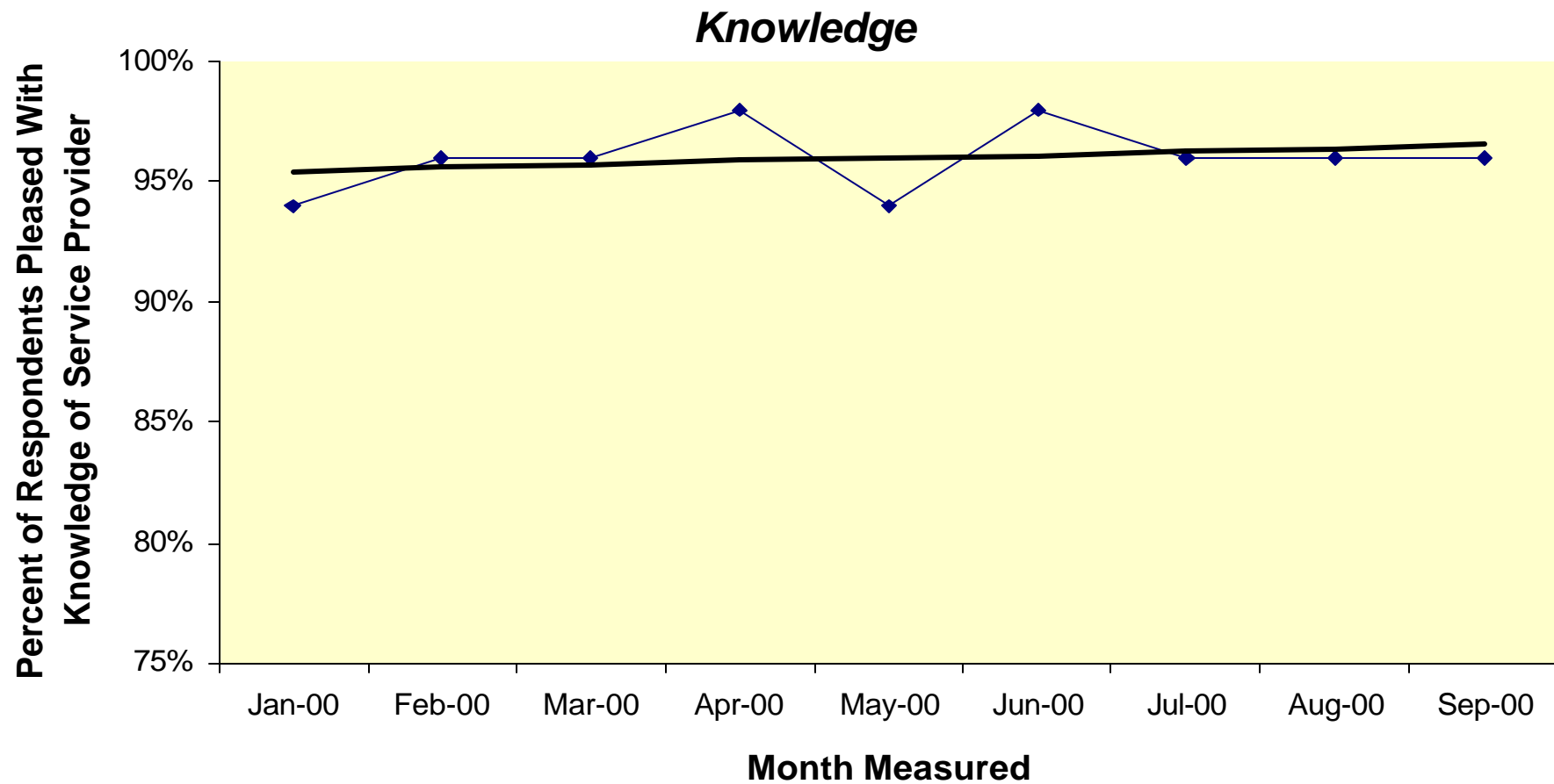
Customers perceive the service providers to be very knowledgeable.

37

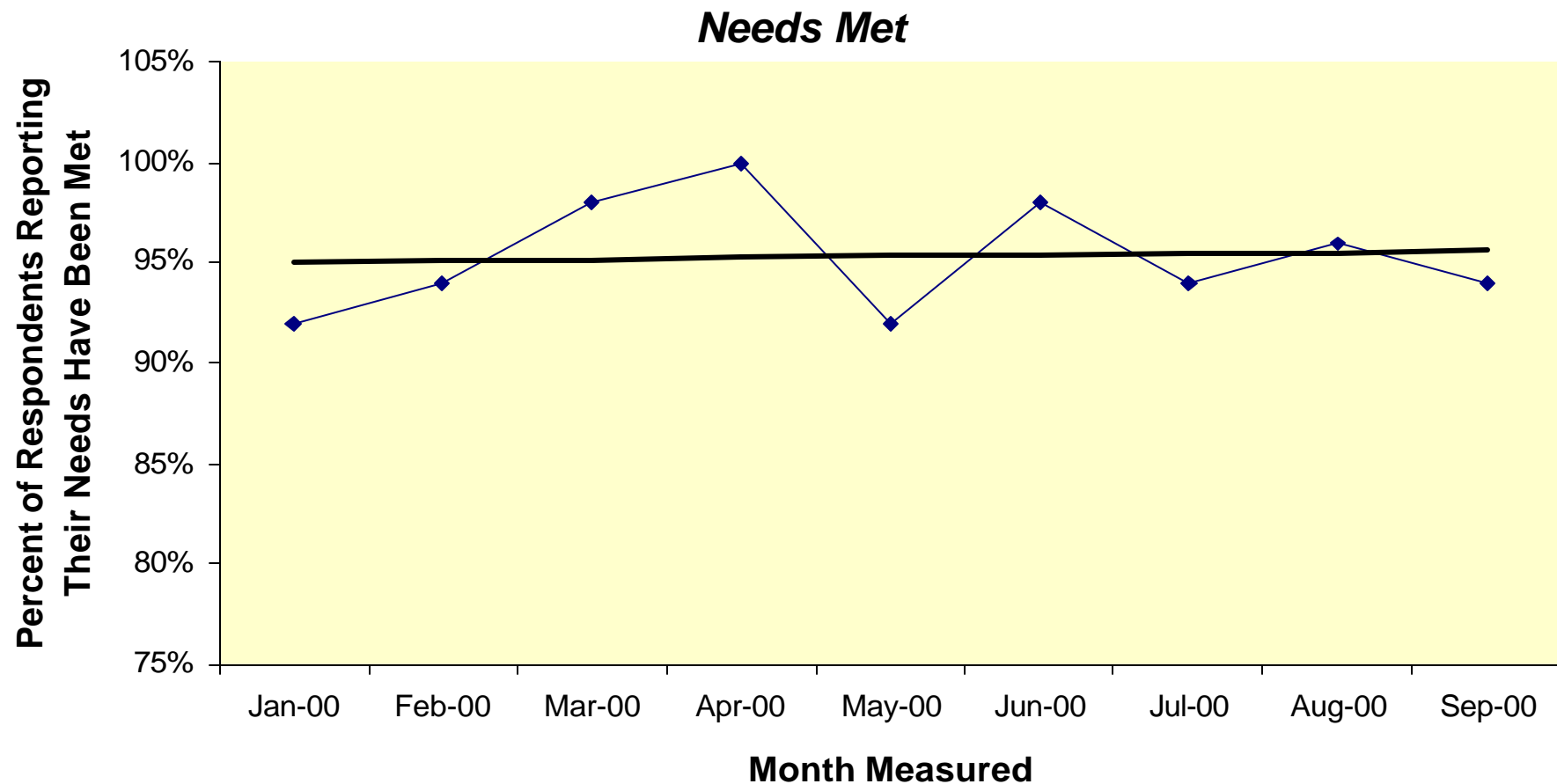# Logistics Services Department
Customer Feedback
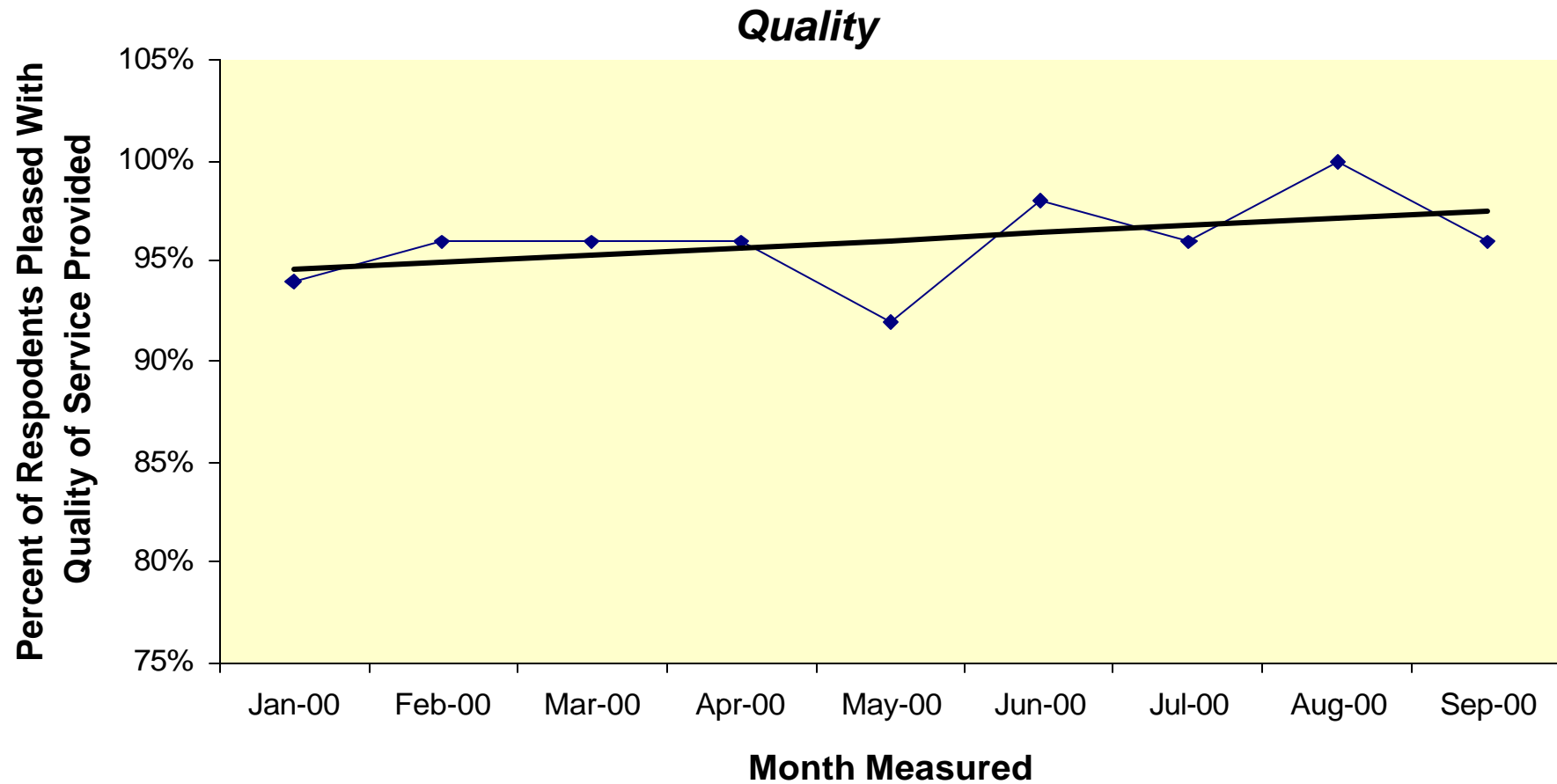
Quality

Quality of services provided continues to improve and customers report a high satisfaction rate with the quality of services.

38

Logistics Services Department
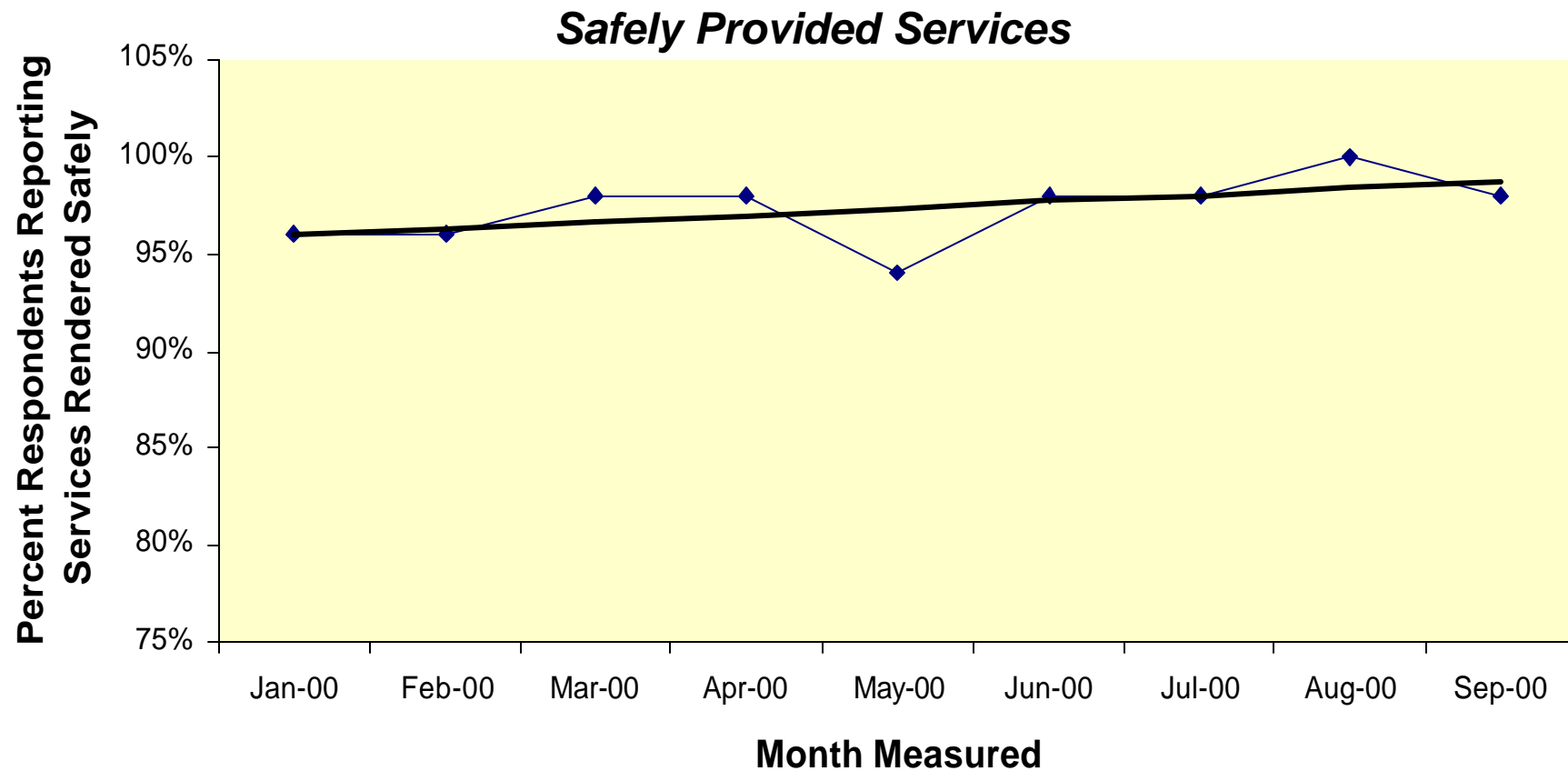## Customer Feedback

Needs Met

Customers consistently report a high level of satisfaction when asked if their needs were met.

Logistics Services Department
Customer Feedback

Safely Provided Services

*Customers satisfaction is steadily increasing while dissatisfaction is decreasing.*

40

The Future of Metrics in Center Operations

- Feedback information is utilized to monitor performance against established performance metrics

  - This feedback helps identify areas of opportunity for improvement

- Center Operations will continue to evolve collecting customer feedback information

  - Eventually this will cover all services and products provided by Center Ops

MSFC Customer Feedback / Quality Comment System

John McPherson

QUALITY COMMENTS RECEIVED OVER TIME
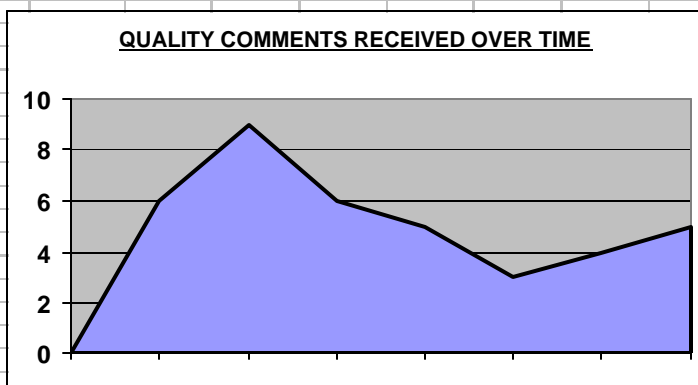
DATE RECEIVED	1/98 thru 6/98	7/98 thru 12/98	1/99 thru 6/99	7/99 thru 12/99	1/00 thru 6/00	7/00 thru 12/00	1/01 thru 6/01	7/01 thru 8/15/01
QC COUNT	0	6	9	6	5	3	4	5

HEI/J. McPherson 8/15/2001

	TOTAL Since 10/97	Made to RCARs Since 10/97	TOTAL 6/5/01 thru 8/15/01	Made to RCARs 6/5/01 thru 8/15/01
QualCom	38	0	5	0

HEI/J. McPherson 8/15/2001

|		Quality Comments Received 6/10/2001 thru 8/15/2001		
Internal ID	Provider Org	Provider Contact	Quality Comment Title	Customer Comment
QC-128	ED36	STEVE WHITFIELD	OFF-GAS TESTING BY ED36 FOR GRC	"Always a pleasure … No surprises." Recommend inform when receive suballotment and give estimate of when test will be performed.
QC-129	ICRC/ ED36	DWAYNE HILL	CLEAN ROOM SAMPLING BY ICRC-ED36 FOR ED26	"Pleased with our service."
QC-130	ASRI/ SD43	PHILLIP BRYANT	LEAK TEST GROUND AMPOULES PROVIDED BY TMI AND RPI FOR SUBSA GLOVE BOX INVESTIGATION	"Very satisfied …great job."
QC-131	ED36	EDDIE DAVIS	ED36 FLAMMABILITY TESTING OF TIGA-321, ET AL FOR ATK-THIOKOL	"Very satisfied ... Very easy to interface … All questions answered completely … job well done."
QC-132	CD30	VERNOTTO McMILLAN	CD30 SUPPORT OF NASA HQ COMMERCIAL TECHNOLOGY OFFICE WORKSHOP	"Successful outcome … valuable … hope to lend your support again."

HEI/J. McPherson 8/15/2001

Center Strategic Planning Team
Status for the Marshall Quality Council
August 15, 2001
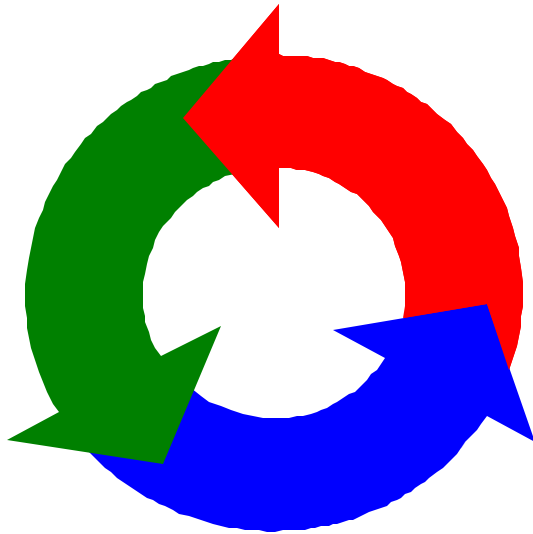
Michael Mc Lean

Internal Relations and Communications Department

Strategic Planning Process

- MPG 1000.1, Center Strategic Planning Process; completed review cycle and corrections to draft made. Corrected draft submitted to DCB August 14, 2001.

- Participated in Directorate/Staff Office road shows to communicate SP, CI, and CS initiatives.

- Early stages of External Assessment with SLI and TD.

- Additional meeting with Center Director scheduled to define scope for this FY activity.

- Balanced Scorecard web site is in development. Completion date for test site is end of August (anticipate mid October - FY02 metrics loaded). Site will provide Center metric status and links to continual improvement and customer satisfaction sites.

CLOSING REMARKS

Axel Roth

NQA Audits - Axel Roth

- Surveillance Audit August 28th – 30th

  - Original "Flight" Scope

  - ISO 9001:1994

- Pre-Assessment Audit August 29th – 30th

  - Full Scope

  - ISO 9001:2000 (9K:2K)

- Registration Audit to ISO 9K:2K in November 2001

Next Surveillance – August 28-30, 2001 - Axel Roth

- # <u>All</u> flight projects are subject to audit

- # Elements to be audited

  - 4.1 Management Responsibility
  - 4.3 Contract Review
  - 4.4 Design Control
  - 4.10 Inspection and Testing
  - 4.12 Inspection and Test Status
  - 4.14 Corrective and Preventive Action
  - 4.17 Internal Quality Audits
  - Customer Complaints
  - Use of the NQA Logo

Pre-assessment – August 29-30, 2001 - Axel Roth

- <u>All</u> MSFC activities are subject to audit

- Emphasis will be on activities providing products/services to external customers

- NQA Transition Audit Checklist has been made available to the Organization ISO Representatives

Issues & Recommendations - Axel Roth

- Need an emphasis on training

- An additional audit of the Center needs to be conducted to ISO 9K:2K prior to November

- Recommend to proceed with the ISO 9K:2K Pre-assessment this month

Other